1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

276 517 smokes his pipe alone, but lets it pass, by turns, from mouth to mouth. Similarly to other primitive peoples, the Choroti not only take the smoke into their mouths, but also inhale it into their lungs, a method of smoking which apparently gives them great satisfaction.

534 The Choroti are only indifferently gifted for music, and their musical instruments are exceedingly primitive. These consist of flutes and whistles of bone, whistles made from skulls, disc-shaped whistles made of

[276 531]

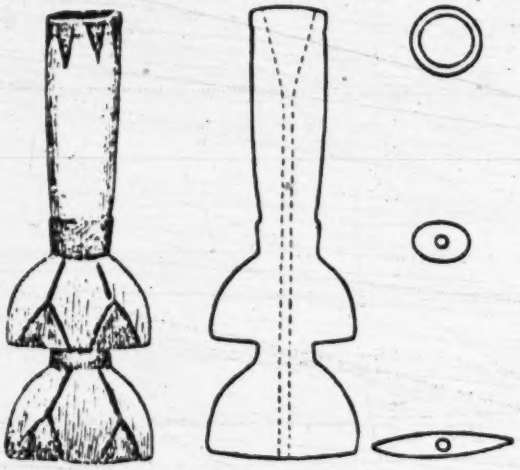

Fig. 160. Yellow wood. Ornament burned in. Riksm. 03. 3. 231.

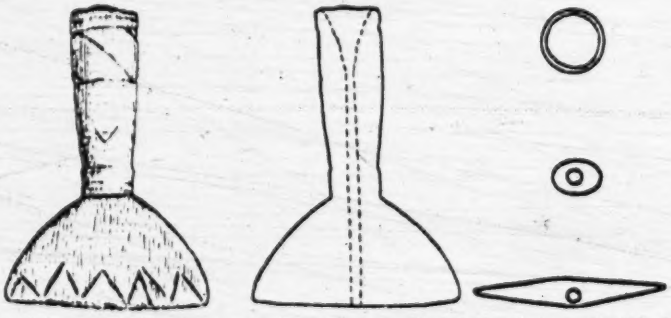

Fig. 161. Yellow wood. The ornament on the mouthpiece and a ring round the mouth of the bowl are burned in. The mark resembling an inverted letter A is carved. The lower ring on the bowl, and the lines that are obliquely issuing from it, are carved and painted red. 03. 3. 232.

Tobacco pipes of wood. Choroti. Gran Chaco. Bolivia. 2/3. Riksm.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

wood, music bows, drums, rattles made of calabash, and dancing rattles consisting of animal hoofs. Latterly the Choroti have also taken up the use of a kind of cow-horn' trumpet with a mouthpiece of reed. 534

The reed flutes bear a great resemblance to the ancient Peruvian flutes, although the latter as a rule are of bone. Like most Choroti flutes, the one depicted in fig. 162 has a notch cut in the edge at the opening of the mouthpiece. This detail is also found on many ancient Peruvian flutes.[1] [171]

Mead writes of the latter that they consist of one-piece tubes of reed or bone, open at both ends, and that they belong to the kind of flutes that are called 'end-blown'. They are blown at the end where the notch has been cut, with the lower lip against the part of the edge which is diametrically opposite the notch. According to Mead, the notes are produced by the air current, in blowing, passing across the mouthpiece opening and striking the sharply cut, opposite, edge of the flute-mouth (i. e., at the notch); this sets up vibrations in the air column within the tube. It is well known that the note which is given off by a flute depends upon the length of the vibrating air column within the flute. For varying the length of the air column, the ancient Peruvian flutes are provided with holes, from three to seven in number. All attempts at discovering any system relating to the distances between these holes have failed. One is reduced to supposing that the flutemakers among the ancient Peruvians placed the holes in a more or less arbitrary way. The fact of the tones producible on flutes of this kind generally not forming any correct scale, is not to be wondered at when one considers the difficulties a modern maker of flutes has to overcome in order to produce a perfect flute.[2]

Open-ended bone flutes of the same kind as the ancient Peruvian ones, are known from, among other tribes, present-day Brazilian Indians dwelling on the banks of Rio Tiquié and Rio Caiarý-Uaupés. About these instruments Koch-Grünberg writes that: 'at the upper edge of the mouthpiece a square or semicircular notch has been cut out. The flute is pressed against the lower lip, and one blows obliquely into its mouth. These flutes have three, or, more seldom, four, finger holes.'[3] [171]

[1] E. g., Engel (1), fig. 18, a, b, c, and Mead (1), the fig. on p. 14, and also plate V, figs. 1, 2, 3, 7, 8, 9, 13, 15, 21, 22, 23.

[2] Mead (1), p. 14 et seq.

[3] Koch-Grünberg (3), p. 193

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 What has above been said concerning the construction and the way of blowing on ancient Peruvian, and Brazilian, flutes, applies in every particular to Choroti reed flutes of the type seen in fig. 162.

With whistles of the construction shown in fig. 163, different tones may naturally be produced by opening or closing the three round holes made

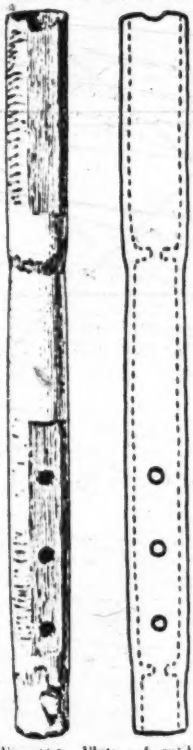

Fig. 162. Flute, of reed. Incised ornament. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 208.

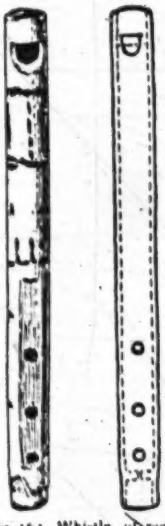

Fig. 163. Whistle, of reed. Ornament burned in. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 210.

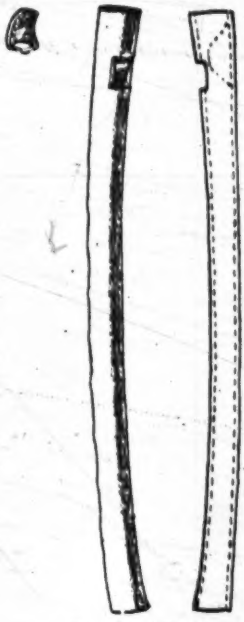

Fig. 164. Whistle, of a bird bone. Choroti, Gran Chaco, Bolivia. 2/3. Riksm. 03. 3. 213.

through the side of the instrument at its lower end. At its upper end the opening is partly closed with wax. This particular whistle is blown in the same way as our ordinary whistles. Some closed Choroti reed whistles are only provided with one hole, usually semicircular, near the opening of the mouthpiece, and are thus without any holes by which different tones can be produced.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534

In previous works on the Indians of the Chaco, there is to my knowledge nothing said about the Choroti possessing whistles made of bone. These Indians do, however, use such whistles, which are made of bird bones (fig. 164). These whistles are open at both ends, so that two notes can be produced; if one closes the lower end of the whistle with the finger, one naturally obtains a note differing from the one given by the open whistle. In the bone whistles, the blowing end is partly stopped up with wax.

Fig. 165 shows a remarkable type of whistle, which is very common in the Chaco. This whistle consists of an oval, flat piece of wood, bored through in the way seen from the figure. On one side it has a sheeting of tin, which originally had a serrated edge all round, like a cog-wheel. Most of the teeth are, however, worn away, but on the left half of the mounting the serrations are almost intact. The mounting is set on the wood by means of some waxy substance. The reverse side of the disc is without any mounting or other ornamentation. For carrying this whistle there is a plaited cord of red, woollen-yarn, which is decorated with a few snail-shell spangles. The object in question is evidently very old, as one of the holes which originally served for fastening the carrying cord has become useless through the cord having worn through the wood, which is of very great hardness, in the way seen from the figure. A new hole for the cord has therefore had to be bored. Oval whistles of this kind, ornamented on one side, are worn as breast ornaments by most Choroti, and are also found among the Ashluslay, Chané, Chiriguano, Churúpa, Lengua, Mataco, Tapiete, Toba and Yuracáre.

Fig. 165. Disc-shaped, wooden whistle; on one side mounted with a piece of tin, the other side unmounted. On the figure, the dotted lines mark the boring. This object is meant to be worn as a breast ornament string round the neck. The carrying string consists of red, woollen yarn, and is decorated with a few snail shell spangles. Choroti. Gran Chaco, Bolivia. $^1/_1$ s. Riksm. 03. j. 214.

[17 301]

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 and Yuracáre. Outside the Chaco, and the regions bordering on it, this type of whistle has not, so far, been found.[1] It is noteworthy that, generally speaking, these whistles have been given a similar, very characteristic, ornamentation. It is only such whistles as originate from the Yuracáre that form an exception from this rule.[2] The ornamentation, which is usually carved in the wood, in low relief, consists of a figure more or less [531] resembling a cogwheel, with a wheel-cross in its centre (fig. 166). Such whistles as have a tin mounting are sometimes without the wheel-cross (see fig. 165).

789 This ornamentation is probably of some magical significance.[3] For the 534 fact is that these disc-shaped whistles are not only a combination of 531 ornament and musical 301 instrument, but they are also put to magical use. Karsten relates that the Choroti Indians, whilst performing their exorcismal dances, now and then blow their disc-shaped whistles to scare off evil spirits.[4]

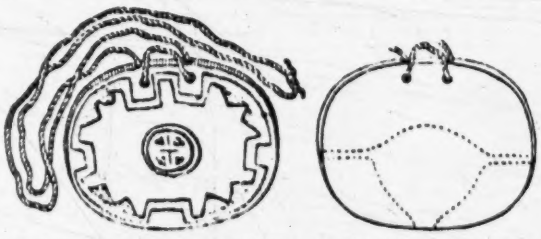

Fig. 166. Disc-shaped, wooden whistle, one side with carved ornaments, the other side plain. Used like the whistle in fig. 165. Choroti. Gran Chaco, Bolivia. ⅓. Gothenburg Museum. D. 793. From Nordenskiöld (11), fig. 56.

In a monograph on whistles I have endeavoured to show that the practice of carrying ornamental whistles is of remote antiquity in America, and I think I have adduced very strong evidence of the so called »mesh-spacers» of antler or polished stone, that have been found in graves in North America, being, as a matter of fact, used as ornamental whistles, and possibly of a magical character.[5]

534 The disc-shaped Choroti whistles are blown at the lower aperture (see figs. 165 and 166), and with the same technique in blowing as described in connexion with the description of the flute in fig. 162. By the closing

[1] Nordenskiöld (11), pp. 188 and 189.

[2] Nordenskiöld (11), p. 188.

[3] Of the wheel-cross having been, and still being, also in America the characteristic symbol of the sun, we possess reliable proof. See e. g. Frobenius (1), fig. 298. Cf. also d'Alviella (1), pp. 76 and 77; and Holmes (1), plate XXXVIII.

[4] Karsten (1), pp. 34 and 35.

[5] von Rosen (8), p. 114 et seq. and Gustaver (1).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

of one, or both, holes which are at the side edges of the disc whistle, different tones are obtained, and if both the side holes are open, the whistle renders a third note. 534

A primitive type of whistle found among the Choroti, one which I have not myself seen, consists according to Nordenskiöld of the skull of some small animal, in which all apertures have been stopped up, with the exception of the *foramen magnum*.[1] The instrument is blown on by way of this orifice in the same way as are the flutes and disc whistles. Koch-Grünberg has reproduced and described two whistles made out of (nose-bear?) skulls (Nasua sp.) from the Kobé Indians on Rio Cuduiarý, and one whistle consisting of a deer skull (Cervus rufus) from the Tukáno on Rio Tiquié.[2] These cranium whistles are partly plastered over with pitch, but the basal, and nasal, orifices are left open, whilst the cranium whistles described from the Choroti by Nordenskiöld only have the *foramen magnum* left open. Hence the former can be used both as open and as closed whistles, and consequently can produce two notes (and eventually their harmonies), whilst the cranium whistles of the Choroti are only capable of one note (with a possible harmonic). I do not consider it improbable that certain, very singular looking Old Peruvian whistles of earthenware or stone constitute forms of development out of the primitive cranium whistle.[3]

The cow-horn trumpets that Nordenskiöld has seen among the Choroti [177] are certain to be post-Columbian cultural elements, seeing that there were no cattle in America prior to the invasion by the whites. In these trumpets the mouthpiece consists of a reed, and the tone is produced by means of a reed splinter, which is cut out, and which, when the horn is blown, vibrates in the same way as the metal tongue of an ordinary toy trumpet.[4]

Nordenskiöld has seen music bows among the Choroti, but no instrument of that class has yet been described from that tribe, and as I personally got no opportunity of seeing a Choroti playing on a music bow, I am not in a position to describe the manner in which the instrument in question is played among these Indians.[5]

[1] Nordenskiöld (11), p. 187.

[2] Koch-Grünberg (3), pp. 302—304.

[3] See for example Mead (1), pl. IV, fig. 8; Joyce (1), p. 73 and plate VI, figs. 1 and 3; Jijón y Camano (1), pl. XVII, XVIII and XIX; von Rosen (1), pp. 378 and 379, and fig. 356.

[4] Nordenskiöld (11), fig. 50.

[5] For the occurrence of music bows in South America, see: Bolinder (2), Nordenskiöld (18), pp. 80 and 84; (11), pp. 176 and 177, and (1), p. 15.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 174 When pointing out that Gustav Bolinder saw music bows being used among the Busintana Indians of the mountain regions of northern Columbia, I made the following statement concerning the occurrence of this instrument in South America: »This music bow (the Busintana one) is almost exactly of the same kind as those in use among many African peoples. But, as we know, peoples who are widely separated from each other may, however, independently of each other make similar inventions. In this particular case there is, however, an additional circumstance which lends it an especial interest. The music bow is by the Busintana called 'marimba',

Fig. 167. Magic drum, consisting of a clay pot, partly filled with water, and with a skin stretched over it. Choroti. Gran Chaco, Bolivia. 1/6. Riksm. 10 3. 143.

a name which also in Africa is given to primitive musical instruments. 'Marimba', 'myrimba', 'marimbo' and 'kirimba' are words which occur in a great many Bantu dialects throughout Central Africa, and in every case signify musical instruments. In view of this fact, I think it not improbable that the use of the marimba was introduced into South America by slaves imported from Africa.«[1]

In a monograph on the music bow of the Busintana, Bolinder has subsequently adduced very strong reasons in support of my supposition that the music bow was actually introduced into South America from Africa in the above indicated manner.[2]

[1] von Rosen (9).
[2] Bolinder (2).

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I never heard the Choroti sing or play any real melody; as I have already pointed out, the musical sense of these Indians appears to be exceedingly rudimentary. But when they are beating their magic drums (fig. 167), or using their magic rattles (fig. 170), one perceives that they are by no means lacking in a sense of rythm. 533

Fig. 168. Drumstick, of wood, with a small tinplate mounting. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 394.

The drums as well as the rattles are of a magical character; both are principally used at incantations and magic dances.

The magic drum consists of an earthenware vessel which is partly filled with water, and covered over with a piece of skin. The skin is tied round the mouth of the vessel with a string of caraguatá (fig. 167). A single drumstick is always used. Drumsticks are of wood, and usually carved; sometimes they have metal mountings (figs. 168 and 169). When the drum is to be used, it is usually stood on a ring of straw which is placed on the ground.

Drums consisting of clay pots with skin stretched over them have also been in use in North America. According to some early authors, such drums were not beaten with the bare hand, but with a drumstick: thus they were in this respect handled in the same manner as by the Choroti.[1] As to whether the North American drums were also partly filled with water, I am not able to say, as in the literature I have found no information on that point.

In a previous work I have endeavoured to show that, among the Choroti, water was put into the drums for the purpose of tuning them to the pitch that was wanted.[2] This detail of information, which I had from the Choroti themselves, is in all probability correct. Karsten, however, offers a different explanation. He is of opinion that the water is poured into the clay-pot drums exclusively for reasons

534 [789]

Fig. 169. Drumstick, of wood with ring shaped tin mountings. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 398.

[1] See for example Holmes (1), p. 34 and fig. 4.
[2] von Rosen (2), p. 13.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

534 of magic, and on this matter he writes as follows: »These drums consist of a plain clay pot, which is partly filled with water and has a goat- or deerskin stretched over it. Here the water evidently serves no practical purpose. It may therefore be supposed that the idea was simply to strengthen the magic force that the drum gave out when beaten upon.»[1] Karsten's saying that the water in the pot could serve no practical purpose seems to me strange, as, by practical experiment, one can easily satisfy oneself that a Choroti drum partly filled with water gives out quite a different tone to what it does when quite empty. We also know that elsewhere similar means are employed for tuning drums as desired, for it is stated by Engel that the Chinese used to fill their »po-fu» or »ku» drums, wholly or partly, with rice husks, in order to give roundness and mellowness to the tone.[2]

531

Fig. 170. Magic rattle, of calabash with incised ornament. Carrying cord of red, woollen yarn. Choroti. Gran Chaco. Bolivia. 1/2. Riksm. 03. 3. 386.

Figure 170 shows a magic rattle consisting of the shell of a calabash, and containing a dark-blue, much worn, piece of glass and two kinds of almost spherical seeds, one of them being black and the other yellow. The latter have a diameter of 5 mm; they belong to a species of Smilax. Professor Fries has pointed out to me that the roots of Smilax species are officinal. It has not been possible to determine the black seeds; their diameter is 4 mm. In the handle is fixed a carrying cord of

[1] Karsten (3), p. 205: »Diese Trommeln bestehen aus einem einfachen Tontopfe, der zum Teil mit Wasser gefüllt und mit einer Ziegen- oder Hirschhaut bezogen ist. Das Wasser dient in diesem Falle zu keinem anscheinend praktischen Zwecke. Wir können daher annehmen, dass man einfach glaubte, die zauberische Kraft zu erhöhen, die dem Tontopfe anhaftete, und die von der Trommel ausstrahlte, wenn sie geschlagen wurde.»

[2] Engel (1), p. 41: »The po-fu used to be partly filled with a preparation made from the husk of rice, *in order to mellow the sound*.» Italics by von Rosen.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

plaited, red woollen yarn; in the centre of the thick end of the rattle a circular hole has been made, 1.5 cm in diameter. It is through this hole that the above mentioned seeds have been poured into the calabash. The hole has then been stopped up with a plug of some black, waxy substance. The visible part of the plug is decorated with a mother-of-pearl button which originates from the whites. On the calabash there is carved ornamentation. 534 ●

Rattles do not always contain only seeds, for in their interior one may also find other articles, such as bits of tinplate, glass beads and bits of glass (usually worn into a resemblance of pebbles), see fig. 182.[1] The incised ornament on these rattles is probably in every case of magical significance, even when, as on the rattle in fig. 170, it does not form any pictorial representation which is perceivable by the uninitiated. Pictorial representations are, however, fairly common on magic rattles of calabash (see fig. 181) In many rattles, the seeds, bits of metal, etc., have been introduced by way of a hole at the end of the handle, fig. 181, into which a plug of wood has then been inserted. This kind of rattle is as a rule without a hole at the base, or carrying string (see table on page 169).

Nordenskiöld[2] as well as Karsten[3] has given valuable accounts of the dances of the Choroti. At some of these the Indians wear a kind of dancing girdle, hung with animal hoofs or dried fruit shells which beat against each other at the dancer's movements, and in that way make a rattling noise. Karsten has tried to establish that all Choroti dances originally were of magical purport,[4] whilst Nordenskiöld is of opinion that the Choroti also possess purely profane dances, connected with the sexual life of these Indians.[5] Nordenskiöld describes this kind of dance in the following way: »In the larger villages, among the Choroti as well as the Ashluslay, there is dancing every night, nota bene, if the belly is not empty. For the young people these dances are everything; all their interest 535 [534] 535 302

[1] The bits of glass that one finds inside magic rattles are as a rule so much worn and stone-like that it requires a mineralogist to ascertain the fact that they are not products of nature (see fig. 182). The statement that one often finds the magic rattles of the Choroti containing stones (Vide von Rosen (3), p. 12), is erroneous, and due to the illusive resemblance that these worn bits of glass bear to quartz pebbles.

[2] Nordenskiöld (18) and (17).

[3] Karsten (1) and (4).

[4] Karsten (4), p. 26.

[5] Nordenskiöld (17), p. 145.

1: Rosen E-5 (1901-1902) 1924 SK6 Choroti SK6

I cannot tell, but from an analogous carving from the Lengua it is very probable that they represent spirits.[1]

Most rattles contain seeds, and in many of them are also found a large number of metal fragments (see synoptical table below). The latter as a rule consist of small, square pieces of tin plate, for the most part with a side of from 5 to 15 millimetres. Bits of glass do not unfrequently occur in the rattles, although never in any great numbers; generally only a few bits of glass are found in any one rattle. In the Chaco, bits of glass are naturally extremely rare. In the rattle reproduced in fig. 181 were only found bits of tin plate and one cactus spine. Although this rattle belongs to the handle-hole type (see pp. 148, 149), it nevertheless has a hole in the bottom, with a plug of the kind I have described in connexion with the magic rattle, fig. 170. Professor Robert Fries has been kind enough to examine the different kinds of seeds that I have found in magic rattles, as well as in the bag mentioned below, and he then determined the presence of a species of Canna, a leguminous plant, a species of Convolvulaceæ, one of Sapotaceæ and a Smilax. Several kinds of seeds could not be identified from lack of material to compare them with.

Synoptic table of contents in magic rattles from the Choroti.

Riksm. coll. 03. 3.

No. of rattle	Type of rattle	Contents
386	Plugged hole through bottom. Carrying cord (fig. 170).	Seeds (Smilax and undetermined), 1 dark blue piece of glass.
385	Ditto.	Seeds (Smilax and Canna), 2 bits of zinc plate, 1 spiral spring of iron, 2 cactus spines.
390	Plugged hole through tip of handle, ditto through bottom. No carrying cord. (fig. 181)	Nine bits of plate iron, one cactus spine.
384	Like foregoing, but no hole at the bottom.	Seeds (Canna and undetermined), 2 bits of plate iron.
387	Ditto.	Seeds (Smilax, a leguminous plant, and of unknown species), 34 black glass beads, 1 blue glass bead and 4 yellowish-green bits of glass.
388	Ditto.	Seeds (Convolvulaceæ and unknown), 1 piece of zinc plate, and 1 uncoloured piece of glass.

From a Choroti I obtained by barter a small bag of red cloth (Riksm. 03. 3. 391), abundantly wound round with caraguatá string, in which he said he used to keep the things that he put into magic rattles.

[1] Grubb (1), p. 75, and fig. a on plate following p. 76.

2: Nordenskiöld E-5 (1908-1909) 1919
SK6 Choroti SK6
Ashluslay SK5

say. In addition to the above-mentioned tribes I have seen them among the Toba, Tapiete and Mataco. The Choroti dolls are remarkable for the face-tattooing being so accurately performed, though it is done on the body. Dolls made of the toe-joints of ostriches also occur among them. The Toba and, according to HAWTREY[1]), the Lengua also have dolls of this kind.

A C 524

[1]) P. 297.

A C 534

Fig. 48. Skin-drum stick [illegible]. 1/3.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

XXII.

Signals and Musical Instruments etc.

Considering their primitive state the (1) Choroti and the (2) Ashluslay possess a good many musical and signalling instruments. They have several kinds of whistles, rattles, *skin-drums* (Map 30) trumpets, flutes and the musical bow.

The skin-drums which, among the tribes here mentioned generally consist of an earthen vessel half full of water, over which a skin is stretched, are probably one of the elements of civilization which have come to the Chaco Indians from the mountain area of civilization. Like the Incas[1]), Indians of the Chaco never make use of more than one drumstick. (Fig. 48). The skin-drum is one of the elements of civilization in the spreading of which the whites have undoubtedly contributed. Thus the drums which the Indians of (48) N. W. Brazil employ give the impression of being imitations of the drums of the whites. The Katapolítani Indians call the skin-drum «tamborino» and the Siusí Indians «tamorino».[2]) Koch-Grünberg does not mention any other names for the skin-drum. Moreover these drums are covered with skin on both sides, while the real Indian drum has skin on one side only. Nor do I consider the skin-drums found among the Indians

[1]) Como, Vol. 4. p. 229 and Mead, Pl. 2, fig. 7 and 9.
[2]) Koch-Grünberg, (5), p. 80.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

of (47) Guiana to be genuine Indian ones. Indeed the Macusi call the skin-drum »Zambola».[1])

The same is true also of the skin-drum which GILIJ found among the Indians of the (74) Orinoco. GILIJ himself is of this opinion. He writes as follows: —[2]) »mi do a credere, che questa foggia di tamburi sia moderna tra' Tamanachi. La voce Ciambura, con cui li chiamano, sembra venuta dallo Spagnuolo tambor.»

In keeping with this, K. v. D. STEINEN found no skin-drums among the Indians on the Upper Rio Xingú, who, when he visited them, were unaffected by the civilization of the whites. The Karajá have likewise no skin-drums.

The fact that the Chaco Indians stretched the drum-skin over an earthen vessel and not over a wooden frame must have been owing to the difficulty of working in wood with poor tools.

In the table on page 183 I have indicated the tribes among whom I have found the skin-drum. They are, besides the (19) Aymara and (18) Quichua who have now skin-drums of European type, only the tribes living south of Sta. Cruz de la Sierra. Skin-drums are found north of that place too, but exclusively among civilized Indians. It is, however, possible that the Indians there have had genuine Indian skin-drums, as the skin-drum is mentioned by CASTILLO[3]) from the (25) Mojo Indians, and by ALTAMIRANO[4]) from the (65) Baure.

Negro-slaves may also have spread the skin-drum in S. America. Thus PANHUYS[5]) mentions the skin-drum from the negroes of Surinam, where it is also found among the (55)[6])

[1]) GOEJE (1), p. 45.
[2]) Vol. 2, p. 350.
[3]) p. 310.
[4]) p. 107.
[5]) p. 524.
[6]) GOEJE (1), p. 45.

2: Nordenskiöld E-5 (1908-1909)1919
SK6 Choroti SK6
Ashluslay SK5

000 tribes from the whites and possibly also from negro slaves, it is yet evident that in the Chaco it is an element of civilization which the Indians have received from the mountain area of civilization.

Whether the special form of skin-drum — the earthenware drum — which is found among the Choroti and the Ashluslay, was also used by the Indians inside the western area of civilization, I do not know. Besides these tribes it is also known from the (8) Lengua[1]), (6) Mataco, and (X 4) Payaguá[2]).

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Bolinder[3]) who, a short time ago, published a work on the musical-bow, mentions it from the Busintana, Araucanians and Patagonians in addition to the tribes named in the table. Like several other explorers Bolinder is of the opinion that the Indians received the musical bow from Africa through the mediation of negro slaves.

String instruments are held to have been unknown in America in the time before Columbus. They are not mentioned in the literature on the Incas from the time of the Discovery, nor have they been met with in the archaeological excavations which have been carried out in the dry coast districts of Peru, where they might well have been preserved.

The Indians seem to have learned the use of these string instruments from their white conquerors or their negro slaves at a very early date. Gaspar de Carvajal[4]), who accompanied Orellana and described his journey, states of some Indian tribes on the lower Amazon (not at the mouth itself) that they had musical instruments fitted with three strings so-called »Arrabeles». He writes as follows: »Venían muy lucidos, con diversas divisas y trafan muchas trompetas

1) Grubb, Page 75.
2) Azara (2), Page 304.
3) (4).
4) Page 64.

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y atambores, y órganos que tañen con la boca y arrabeles que tienen a tres cuerdas.»[1])

As early, then, as the time of ORELLANA the Indians of the Amazon possessed a fairly advanced type of string instrument which they must have got from the Europeans, since it is not possible that such a complicated musical instrument could otherwise have had in the whole of America merely a local occurrence.

This is a matter of considerable interest, as it shows how speedily new elements of civilization coveted by the Indians can be acquired by them after they have come into contact with the conquerors. It is also probable that, especially at the beginning of the period of conquest, where famous Indian tribes like the Tupinambá, some Arawaks and others were not oppressed, foreign elements of civilization were more easily assimilated by them than later on when they lost their independence and self-confidence.

The *rattle-gourd* (Map 31) is common among the (1) Choroti and the (2) Ashluslay, as well as among the (7) Toba, (6) Mataco, and (3) Tapiete. Otherwise I have not met with it among any of the tribes whom I have visited on my journeys.

The rattle-gourd, however, occurs over an extensive area in S. America. We find it among the (48) Siusi[2]), (48) Uanána[2]), (48) Tucáno[2]), (48) Tuyúka and other tribes on the Rio Negro, among the (61) tribes on the Rio Yapurá and Rio Içá[3]), (14) Bororó[4]), (9) Toba[5]) on the lower Rio Pilcomayo

[1]) It should be noted here that CARVAJAL's description of all that concerns the manners and customs of the Indians, with the possible exception of his description of the fight with the Amazons, gives a strong impression of trustworthiness.

[2]) KOCH GRÜNBERG (2).

[3]) WHIFFEN, Page 314.

[4]) K. v. d. STEINEN (3), Page 506.

[5]) DIEGO, Page 7).

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Juan in Argentina. Two types of rattle gourd can be distinguished in S. America. In the one the tapering part of the calabash serves as handle, while in the other the handle consists of a peg stuck through the calabash. It is the first, more primitive type which is found in the Chaco. It is not possible, at present, to make a satisfactory map of the distribution of the two types, as most of the authors who mention the rattle-gourd do not describe it in detail.

Evidently the rattle-gourd is an ancient element of civilization in S. America, and at the present time it is impossible to say whence the Choroti and Ashluslay received it.

I have not seen dance-masks among the Choroti or Ashluslay. A large number of the ornaments mentioned here, however, are in the first instance worn when dancing. On these occasions also girdles are worn with pendent claws of the tapir, peccary and other animals, which serve as rattles. Rattles of this kind are also fixed on long sticks and used in a certain dance.

Similar rattles are widely spread in S. America. Their pendents, however, consist almost everywhere of fruit-rinds instead of claws. In the districts where I have travelled they are very rare. I have only seen them among the Churápa in the neighbourhood of Sta Cruz de la Sierra. From literature I know of such rattles of fruit-rinds from the Indian tribes on the Rio Negro[1]), Rio Yapurá and Rio Içá[2]), the Jivaro[3]), Bakaïrí[4]), Karajá[5]), Tupinambá[6]), Patamona and other tribes in the Roraima area[7]) Aekawoi[8]),

[1]) Koch-Grünberg (2), Vol. I, Fig. 174.
[2]) Whiffen, p. 243.
[3]) Rivet (1), Fig. 7 & 17.
[4]) K. v. d. Steinen (4), p. 420.
[5]) Ehrenreich (3), p. 40.
[6]) Soares de Sousa, p. 208.
[7]) G. M.
[8]) Schomburgk, Vol. I, p. 205.

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Warrau[1]), Conibo[2]), Canella[3]), Tapuya[4]) Cumanagoto[5]) and from the Incas[6]), and rattles of the claws of animals from the Payaguá[7]) and Kayapó[8]).

If the great museums were searched a number of these rattles would probably be found from other tribes. Moreover the particulars I quote here from literature on the subject might certainly be considerably amplified. It is interesting to see how the claws are fastened on the rattles from the Chaco. (Figs 49a and 49b)

Trumpets of a peculiar kind are found among the Choroti, Ashluslay and Chané. They consist of a cow's horn with a reed mouthpiece (Fig. 50). I have not seen trumpets with such mouthpieces among any other Indian tribes visited by me, nor have I found them described in works on the S. American Indians except in some works dealing with the Chaco; I am therefore inclined to assume that the Indians have learnt their use from the whites. Still, this is not absolutely certain, as they are mentioned by so early a writer as Sánchez Labrador from the Mbayá[9].) It is, however, very probable that the Mbayá, even in Labrador's time, had learnt the use of such trumpets from the whites.

The Choroti and the Ashluslay have whistles made of reeds, wood and skulls.

The simplest whistle is one consisting of a small skull

[1]) Schomburgk, Vol. 1, p. 154.
[2]) Ordinaire, p. 300.
[3]) Kissenberth (2), p. 99.
[4]) Piso et Marcgrav, p. 274.
[5]) Oviedo y Valdés, Vol. 2, p. 230.
[6]) Cobo, Vol. 4, p. 220.
[7]) Azara (2), p. 159.
[8]) Pohl, p. 101.
[9]) »Mientras beben los convidados tocan una corneta, cuyo ronco sonido aturde y amedrenta. No es otra cosa esta bocina, que un cuerno de vaca, ó un calabazo largo, agujereado, y por boquilla un cañuto de caña con su lengüeta, al modo de las trompetillas que hacen los muchachos.» Vol. 2, p. 4.

[text continues on p. 179]

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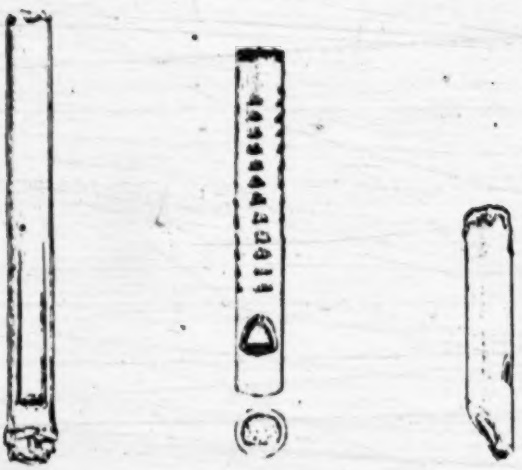

Fig. 50. Mouthpiece of reed for a trumpet. Choroti. G. M. (D. 929) $^{2}/_{3}$.
Fig. 51. Reed whistle. Choroti. G. M. (D. 788) $^{1}/_{2}$.
Fig. 52. " " " (D. 787) $^{1}/_{2}$.

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in which all openings have been stopped with wax except the occipital cavity, which is used for whistling. I have seen such whistles among the Mataco and the Chimane, as well as among the tribes mentioned above. KOCH-GRÜNBERG[1] mentions them from the Tucáno and Kobéua, WHIFFEN[2] from the Indians on the Rio Yapurá and the Rio Içá.

A type of whistle which the Chaco Indians have plainly received from the mountain area of civilization (Map 32) is the wooden whistle represented in Fig. 53. The method of use is to hold the whistle vertically from the mouth and to blow into the upper hole while the lower hole is covered by the finger. I have found whistles of this kind among the (1) Ashluslay, (4) Chiriguano, (5) Chané, (23) Churapá, and (22) Yuracáre. In the Gothenburg Museum we have a similar whistle also from the (8) Lengua Indians. HAWTREY also mentions them from this tribe. A comparison of the whistles here illustrated with the object found at (A) Pachacamac on the Peruvian coast makes it clear that the latter is a thing of exactly the same kind as the one now used by the Indians of the Gran Chaco. It is, moreover, plain that this object was originally but the beam of a pair of Peruvian scales. (Fig. 55) Exactly as we ourselves, once upon a time, in our young days at least, amused ourselves by whistling on a key, the Indians used the hollow beam of their scales as a whistle. This use of the scale-beam evidently spread to the tribes east of the Andes who are fond of whistling but have no need for scales. Genuinely Indian scales and balances are no longer to be found in S. America, but the scale-beam of the old weighing-scales, degenerated into the form of a whistle, still exists among several tribes. This is an amusing instance of the manner in which the function of an object can be changed.

Nearly every young (1) Choroti and (2) Ashluslay man carries a small round wooden whistle. (Fig. 56). One sees

[1]) (2), Bd. 1, p. 302.
[2]) p. 211.

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whistles of this kind, though less frequently, among the (6) Mataco[1]). I have also seen them among the (4) Chiriguano, (5) Chané, (3) Tapiete, (23) Churápa and (22) Yuracáre. Grubb[2])

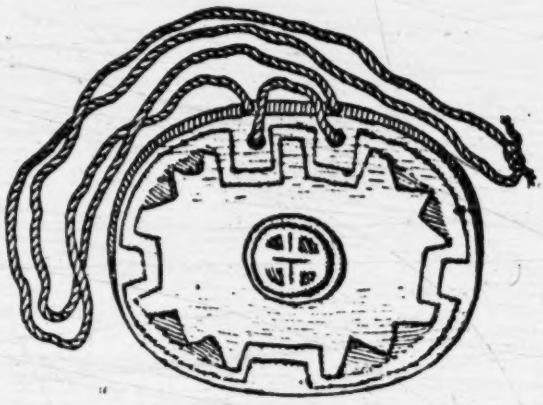

Fig. 50 a. Wooden whistle. Choroti G. M. (D. 793) 1/1.

mentions them from the (8) Lengua and Campana[3]) from the (9) Toba. This type of whistle, therefore, occurs within a continuous area along the Andes and in the Chaco. (Map

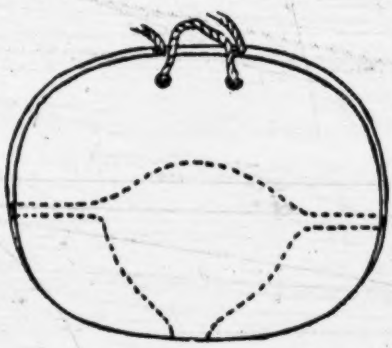

Fig. 50 b. Section of the same.

[1]) R. M. (03. 3. 500).
[2]) p. 75.
[3]) (2), p. 310, fig. 10 b.

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33) I have looked for these whistles in the vast archaeological collections from the Peruvian coast-lands possessed by the Berlin Museum of Ethnology without finding any. Nor is there any mention of them from those places in the literature to which I have had access. Nevertheless I think it very probable that we have here a culture-element which has come to the tribes east of the Andes from the mountain area of civilization. Moreover, I think it extremely probable that these whistles will, in the future, be found in the Peruvian coast-lands. Its western origin I conclude from the uniqueness of its area of occurrence, which is now exactly co-terminous with that of the above-mentioned whistles of the scale-beam type.

It is of interest to notice that the ornamental carving of these wooden whistles is everywhere very similar except among the Yuracáre[1]).

The flutes found among the Choroti and Ashluslay are very simple. They are made of reeds and much resemble those which Mead[2]) has depicted from the coast-tracts of Peru, though the latter are mostly made of bones. In the area explored by me, except among the tribes of the Chaco, I only know of them from the Yuracáre. Similar flutes are mentioned and illustrated by Koch-Grünberg[3]) and Whiffen[4]) from N. W. Brazil. The Gothenburg Museum possesses specimens from the Arecuna and other tribes in Guiana[5]). The Karajá have no flutes[6]). The flutes in different parts of S. America are too little known for me to venture to express any

[1]) Nordenskiold (5), p. 25. [2]) Pl. 5.

[3]) (2), Vol. I, p. 301, fig. 181 and 182. [4]) Page 211.

[5]) The Liljewalch-Thulin collection. G. M.

[6]) »The Karajá Indians are not rich in musical instruments. They have only signalling trumpets, small whistles and tortoise-shell scrapers; rattles serve as the accompaniments of songs. And that is all.» This dearth seems strange, as the Karajá are fond of singing and sing well, and seem to have considerable musical talent.» Krause, p. 315. The Châma, Atsahuaca, and Tambopata-Guarayo have no musical instruments, nor have the tribes of Tierra del Fuego.

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opinion as to the place whence the Choroti and Ashluslay have received their flutes.

In the following table I give a review of the area of occurrence of the musical instruments found among the Choroti and Ashluslay within the area studied by me. I have included the pan-flute, which does not occur among the tribes dealt with here.

	Number on the Map.	Rattlegourd.	Skin-drum.	Trumpets.	Whistle Fig. 33.	Whistle Fig. 30.	Musical bows.	Skull whistles.	Flutes of the Chaco type.	Pan flutes.	Reed whistles.	Bone whistles.	Flutes in general.	Rattles made from fruit rinds and claws of animals.
Ashluslay	2			?										
Atsahuaca														
Aymara	19	—	+											
Chacobo														
Chámа														
Chané	5													
Chimane		—			—									
Chiriguano	4	—								?				
Choroti	1													
Churápa	23	—	O[1]											
Guarayú (Pausерna		—					—							
Huanyam		—	—		—									
Huari		—												
Mataco	6													
Quichua	18	—		—										—
Tamb.-Guarayo		—	—	—										—
Tapiete	3			?										
Toba	7,9			?										
Yamiaca		—			—									
Yuracáre	22	—	—	—										

[1]) O = received from the whites.

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process and the other procreative functions of the woman is realized. The attainment of puberty therefore for the Indian girl certainly means the beginning of her sexual life, but at the same time it means her entrance into a very critical epoch of development, during which she is often — especially at child-birth and during the following menses — exposed to supernatural dangers. Hence the initiation ceremonies at puberty have for their object partly her direct protection against these dangers for the time being, partly her purification once for all from the evils associated with her sexual functions during the years to come or — to express it more plainly — to *harden* her against evil spirits. From this point of view we have to regard all puberty ceremonies of the Indians, even such practices as painting, scarification, and tattooing of the body or face, often undertaken with girls on the attainment of puberty.

In the dances and conjurations performed in honour of girls at puberty it is the women who, contrary to what is generally the rule in religious ceremonies, play the most prominent part. Among the *Choroti* the puberty of girls is celebrated with a magical dance called *Káusima* after the instrument which the women use for it; the instrument is called *káhuis*. The *káhuis* is a dancing-staff, two or three meters in length, made of a light kind of wood or bamboo, which has a bunch of deer's hoofs tied at the top. These rattles produce a hollow sound when the staff is struck on the ground and are supposed to possess a mysterious power to influence the spirits. This power of course must be explained from the fact that to the Choroti the deer is a demoniacal animal. The *káhuis* staff is the only magical instrument used by the Choroti women and it is never handled by the men.

The dance begins at the first new moon after the appearance of the signs of puberty, because the moon is believed to cause and have great influence upon the menstruation of women. It is performed every day until the following new moon, sometimes even still longer. At a *Káusima* dance which I witnessed the arrangement was as follows. The mother of the girl and some other elderly women formed a circle, or rather an elliptic ring, outside the hut where the girl was, each holding her rattling dancing-staff. Close to the ring four medicine-men were sitting at equal distances from one another, holding their rattle gourds (*pelíte*). There were besides two more medicine-men standing up, each provided with a drum. During the dance the women moved round ceremoniously with slow, regular steps, chanting loudly and marking time with their rattle staffs which they struck on the ground. The men outside the ring also chanted, shaking

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Choroti SK6

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in their magical dances and conjurations the Indians as a matter of fact most often deal with these particular evil spirits.

These are features common to the religious beliefs of all Indians of the Chaco; indeed they are found among all South American Indians. But even in the Chaco this general belief in spirits appears in somewhat different forms among different tribes. The *Choroti* fancy that the spirits, *möhsek*, in their external appearance have the shape of old, withered men (*kihilahs*). They are, in the imagination of the Indians, provided with wings, which enable them to move rapidly through the air. Owing to their bird-like appearance the spirits are also called *ahuena* («the birds»). They are countless in number, mostly invisible, and as a general rule evilly disposed towards mankind. I never met an Indian who professed to have *seen* a *möhsek*, but nearly all say that they have *heard* their voices at night. One peculiarity of the demons of the Chaco Indians is that they only exist at night. As soon as darkness sets in the Choroti Indian fears mysterious dangers from the *möhsek*, who are then believed to draw near the villages in great numbers and even to enter into the huts, visiting the inhabitants with sickness and death. This is the reason why a traveller living with the Choroti can hear from some house nearly every night the low chant of some old man accompanied by the dull sound of the rattle gourd, *pelite*, with which he tries to conjure and keep off the supernatural pests. At daybreak however the spirits are supposed to leave for the forests and the plains — with a piping or whistling sound, the Indians explained to me, which they are very clever in imitating. For this purpose the Choroti use a special kind of round whistle which they generally wear hanging round the neck as an ornament. At their religious dances they produce, from time to time, shrill whistling sounds with these whistles, professedly with a view to conjuring the *möhsek*. The Indians believe that they can keep supernatural beings at bay by imitating them in their external appearance or their sounds.

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In the Chaco many weird sounds are heard at night which are apt to fill the natives with superstitious fear. The Choroti frequently told me about the »nightly whistling of the spirits» (*yap möhsek ahnáh*). The peculiar piping or whistling which is most often identified with the sound of the spirits is, I believe, produced by certain insects living on the stems or branches of the trees. The spirit of the tusca tree was specially mentioned to me, but this spirit is said to be a »good» being.

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The idea of the Choroti, that the spirits have the shape of old men, has given rise to a peculiar and cruel custom. They do not allow their

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Chapter XIV.

2. Other kinds of conjuration.

From what has been stated above of the social customs of the Chaco Indians, we realize that there is hardly any important event in the life of these natives which is not celebrated with religious or magical ceremonies of some kind. Generally these ceremonies are simple: drumming, the shaking of rattles, dancing and chanting form the main features in all of them. A few words may be said in this connection about the magical instruments, the *drum* and the *rattle*.

The drum, which is called *usyük* by the Choroti, *huitsyük* by the Mataco and *kaltaki* by the Tobas, is known to all Pilcomayo tribes, although it is nowadays little used by the Bolivian Tobas. It is a simple instrument, consisting of a small clay pot which is covered with a goat's or deer's skin. In beating the drum only one stick is used. Generally the pot is partly filled with water — a detail which I cannot exactly account for, since it has no perceptible influence upon the tone of the instrument. Probably the water is believed to eke out in some way its magical efficacy. The drum is the principal magical instrument of the Argentine Mataco who use the rattle gourd less, whereas, on the other hand the Choroti, who also use both instruments, seem to appreciate the rattle more. In a Mataco village the drum is at work nearly every day: sometimes the spirit of a dead Indian is frightened away with it, sometimes other evil spirits, disease-spirits, spirits of hurricanes, tempests, drought, etc. are conjured with it; sometimes the Indians try to influence the good spirits animating trees and plants with it, so as to effect an abundant harvest of algaroba and chañar. The Choroti again mainly use the drum during the algaroba season, when the instrument is beaten both day and night. In a Choroti village where I lived for several months, an Indian sorcerer was specially engaged for this important ceremony.

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The object of the drumming was to »hurry on» the ripening of the algaroba and the chañar fruits, and at the same time to frighten away the evil spirits of hurricanes and tempests which frequently blight these trees at the time when they are flowering. Drought is another great danger to a rich algaroba and chañar harvest. By means of drumming the demons, who cause drought by keeping rain back, are conjured. In some cases it seems as if the drumming Indian, by the very time in which he is beating his drum, were imitating the fall of the rain-drops. The Choroti drummer seldom wears the rattle-belt (*tahús*), which on the other hand seems to be regarded as indispensable by the Mataco drummer. The latter, when he is beating the drum, continually moves his body up and down and from one side to the other in order that the rattle which he wears round the waist may make a noise.

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The other of the two principal magical instruments of the Chaco Indians is the rattle gourd, called *poketá* by the Tobas, *votsotáh* by the Mataco, and *pelíte* by the Choroti. It consists of a round or oval bottle-gourd, hollowed out through a small opening in the tapering stem, and then filled with dry seeds, generally of tusca, small shells, beads, or other things producing a rattling sound. The outside is often ornamented with lines, triangles, squares, or other geometric designs. The instrument, when shaken, is believed to have a remarkable »power», which is partly due to the magical properties of the gourd itself, partly to the seeds or other things with which it is filled, partly to the geometric figures with which the outside of the gourd is ornamented. The instrument is used much on the same occasions and for the same purposes as the drum. I have stated, however, that the *Choroti* not only use the *pelíte* to frighten away or conjure evil spirits in general, but also for certain positive ends. To shake the rattle is in the Choroti language called *nekeālitse*; when it is shaken for a special purpose they use the expression *nekeālitse sīmä*, which means more or less: »to shake the rattle to obtain something». Thus I have mentioned that during the marriage and courtship dances such young men as are despised by the girls are in the habit of shaking their rattles in order to »hurry on» the latter and to have greater success in love. Similarly, when a young man goes out to find a bride in connection with the dances, his father at home continually shakes the rattle to »hurry on» the girls on behalf of his son and promote his important undertaking. There are many other instances of the same kind. When the Choroti women go out in the forest in the morning to collect algaroba beans for the brewing of the sacred beer or other wild

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sible. I may add here that the Choroti men are in the habit of wearing round their neck a kind of flat whistle made of wood and ornamented with incised figures. With these whistles they produce shrill sounds from time to time during the dances, which are supposed to imitate the sounds of the spirits and have the power of frightening them away.

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How the Indians believe themselves to be able to influence even natural processes by imitating them, appears in an interesting way from the following curious ceremony which I witnessed among the Choroti. These Indians cultivate the maize only on a very limited scale, and it is among them a rare cereal. In a village the women had obtained some maize and were cooking it on the open place outside the huts. While the maize pots were boiling, the women sang in a loud, quavering, guttural voice, which it is impossible to describe exactly, an extremely monotonous chant, which was evidently meant to imitate the monotonous sound and the regular, bubbling movements of the water boiling in the pot. The women explained to me that *in this way the pot would boil well and the maize soon become soft.* The chanting was thus a means of »hurrying on» a natural process according to the same magical principles as we have noticed in several other cases.